

INTERNATIONAL SEARCH REPORT

International Application No

PCT/J 3/13472

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B23P19/06 B25B23/12 B25B15/06

Rec'd PCT/PTO 25 FEB 2005

According to International Patent Classification (IPC) or to both national classification and IPC

10/525656

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B23P B25B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 348 282 A (RENAULT AUTOMATION) 27 December 1989 (1989-12-27)	1, 3, 4
A	the whole document	5, 6
Y	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 08, 6 October 2000 (2000-10-06)	1, 3, 4
A	-& JP 2000 135636 A (KOJIMA KOGYO:KK), 16 May 2000 (2000-05-16)	5, 6
A	abstract; figures	2
A	PATENT ABSTRACTS OF JAPAN vol. 016, no. 440 (M-1310), 14 September 1992 (1992-09-14)	
	-& JP 04 152033 A (YOSHITAKA AOYAMA), 26 May 1992 (1992-05-26)	
	abstract; figures	
	--- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

6 February 2004

Date of mailing of the international search report

16/02/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 009, no. 121 (M-382), 25 May 1985 (1985-05-25) -& JP 60 006320 A (SHIBAURA SEISAKUSHO:KK), 14 January 1985 (1985-01-14) abstract; figures ----	1,2,5
A	PATENT ABSTRACTS OF JAPAN vol. 016, no. 002 (M-1197), 7 January 1992 (1992-01-07) -& JP 03 228524 A (MATSUSHITA ELECTRIC IND CO LTD), 9 October 1991 (1991-10-09) abstract; figures ----	1-6
A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 01, 30 January 1998 (1998-01-30) -& JP 09 254044 A (MEISHO KK), 30 September 1997 (1997-09-30) abstract; figures ----	1,5
A	US 5 123 309 A (MOCERI THOMAS J) 23 June 1992 (1992-06-23) the whole document ----	1,5,6
A	US 3 126 774 A (CARR) 31 March 1964 (1964-03-31) column 2, line 12 - line 14; figures ----	2
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 05, 14 September 2000 (2000-09-14) -& JP 2000 061745 A (TANABE IKUO;TAHARA TEKKOSHO:KK; SELECT:KK; AOYAMA TEKKUSU:KK), 29 February 2000 (2000-02-29) abstract; figures -----	5

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/J 8/13472

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 348282	A	27-12-1989	FR 2632884 A1	22-12-1989
			EP 0348282 A1	27-12-1989
JP 2000135636	A	16-05-2000	NONE	
JP 04152033 6	A		NONE	
JP 60006320 6	A		NONE	
JP 03228524 6	A		NONE	
JP 09254044 6	A		NONE	
US 5123309	A	23-06-1992	NONE	
US 3126774	A	31-03-1964	NONE	
JP 2000061745	A	29-02-2000	NONE	